

BRIEFING MEMORANDUM
Berry's Creek Superfund Site
(Morton-Thiokol/Velsicol)

Plant Site Ownership History

- 1929 - 1960 F.W. Berk & Co. owned and operated a mercury processing plant.
- 1960 - 1968 Wood Ridge Chemical Co., a wholly owned subsidiary of Velsicol Chemical Co., acquired the entire 40 acre site and operated the mercury processing plant.
- 1968 - 1974 Ventron Chemical Co. purchased the 7 acre tract which encompasses the mercury processing facilities and operated the plant for this period. Velsicol retained ownership of the 33 acres not occupied by the plant.
- 1974 Ventron ceased operation of the mercury plant.

In the late 1970's, Ventron Chemical Co. was purchased by Thiokol and approximately two (2) years ago, Thiokol merged with Morton to form Morton-Thiokol.

Site Background

The site is a 40 acre parcel located in Bergen County just east of Carlstadt on the western bank of Berrys Creek in the Hackensack Meadowlands (see attached maps). In 1974, the 7 acre parcel upon which the processing facilities existed was sold to Wolf Realty Company. Wolf Realty demolished the processing plant, excavated the contaminated top soil, partly entombed the eastern area of the site, and constructed two (2) warehouses on the site. The 33 acre tract of marshland owned by Velsicol was utilized as a landfill for waste spoils from the plant operation for much of the 45 years the facility operated.

Records are very sketchy or nonexistent for much of the operating history of the facility. It is known that the plant operation included the refining of metallic mercury and the production of various amalgams, inorganic mercury compounds and phenyl mercuric salts. Available evidence to date does not suggest that methyl mercury or other organic mercury compounds were manufactured at the site.

There are few records to indicate the amounts of mercury products manufactured during the 45 years of operation. Estimates of the amount of mercury contamination range from approximately 50 tons to 400 tons. It is reported that the concentration of mercury in the sediments of Berrys Creek for a stretch of several thousand feet downstream of the site is the highest reported in the world. The contamination is spread throughout the Berrys Creek ecosystem including the adjacent wetlands.

Enforcement Background

In 1977, the Department initiated legal action against Ventron, Velsicol, et al for their part in the long term mercury contamination of the Berrys Creek ecosystem. After a 55-day trial, a lower court judge ruled the companies were liable for the cost of the cleanup and removal. The "remedy" portion of the case was not decided.

The chemical companies appealed this lower court decision to the Appellate Court. In 1981, the Appellate Court Judge upheld the lower court decision, and required NJDEP to prepare a "Clean Up Plan of Berrys Creek" for the courts consideration. It is important to note that the court was only requesting a plan for the cleanup of the Creek and not the site as well. The court ruled that NJDEP failed to prove that groundwater from the site was leaking into Berrys Creek and, therefore, it was appropriate to only cleanup the stream initially and then monitor it for a year to evaluate whether or not the site and the adjacent wetlands are sources of contamination.

The Cleanup Plan developed by NJDEP provided for the dredging of approximately a 12,000 foot stretch of Berrys Creek four (4) feet deep from the railroad bridge just north of the site to the Route 3 bridge just downstream (approximately 175,000 cu. yds.) with placement of the sediments in a secure dewatering/disposal facility to be constructed on approximately 19 upland acres of the site. Additionally, a cutoff wall (bentonite slurry) to the underlying clay layer would be constructed around the perimeter of the disposal site.

This Cleanup Plan was conditionally accepted by the Appellate Court Judge pending receipt of all necessary permits to implement the cleanup. Included among the required permits would be a U.S. Corps of Engineers 404 permit to dredge the stream, commercial dredging and waterfront development permits from NJDEP Costal Resources, and a stream Encroachment Permit and Water Quality Certificate from NJDEP Water Resources.

The chemical companies made their final appeal to the New Jersey Supreme Court and January 10, 1983, the Supreme Court heard arguments by the defendants and the state. On July 21, 1983, the Supreme Court decided all points of the appeal in favor of the state.

Project Status

As previously described, the Supreme Court Judge conditionally accepted the state's cleanup plan pending receipt of all necessary permits. The major permit required is the C.O.E. permit pursuant to the provisions of Section 10 of the River and Harbor Act of 1899 and Section 404 of the Clean Water Act.

The Department made application for the 404 permit in September 1981. The C.O.E. review of the application resulted in the determination that an Environmental Impact Study would be necessary to properly evaluate the impact of the proposed dredging plan and in turn decide whether to issue the 404 permit or not. In September 1982, the C.O.E. forwarded to → NJDEP the E.I.S. Scope of Work they developed and in January 1983 forwarded its list of technical baseline data (a total of 17 tasks) that would have to be generated by the applicant (NJDEP) in order for the C.O.E. to prepare the E.I.S. p

Shortly after the Supereme Court decision, Velsicol initiated a dialogue with the Department to discuss the possibility of cooperating in a joint effort to address the cleanup of the site.

In September 1983, this project achieved a ranking on the Superfund National Priority List. The Supreme Court decision in conjunction with the project achieving ranking on the Priority List resulted in even Ventron (Morton-Thiokol), the more recalcitrant of the two companies, assuming a more cooperative posture. Accordingly, both companies put up monies and authorized Environmental Resources Management-Southeast (longtime consultant to Velsicol) to meet with NJDEP to discuss whether or not we would entertain a proposal by the defendant companies for initiating a study at the site.

As evidenced by the above information, the Department was faced with essentially two (2) options for proceeding as herein described:

Option 1

This option essentially would be to follow through with the court conditionally accepted cleanup plan. This would entail the following:

1. Accomplishing the data gathering effort required by the C.O.E. to complete an E.I.S. in order for them to evaluate whether the 404 permit should be granted. Since NJDEP does not have the resources to complete the data gathering, the most appropriate alternative would be for NJDEP to develop a Request For Proposals (RFP) to hire a contractor to complete the work. ←
2. Request the court to require the defendant companies to put up the monies for completing the above work.

There are major drawbacks to this option. First of all, the remedy portion of this case has yet to be decided at even the lower court level. In all likelihood, the defendant companies would contest the state at every step along the way in our requesting the court to require the companies to put up any monies to proceed. Even if the state was to win at the lower court level, the court appeals available to the company could tie this case up in litigation for another 5 to 10 years. Secondly, the cleanup plan developed by NJDEP in June 1981 addresses only the cleanup of Berrys Creek and not the adjacent wetlands and the 40 acre site itself. Furthermore, there is no guarantee that a 404 permit will be granted by the C.O.E. upon their completion of the Environmental Impact Statement. CWA Permit

Option 2

Under this option, NJDEP would engage in negotiations with the defendant chemical companies for the purposes of developing a consent agreement in which the companies would agree to pay for a comprehensive remedial investigation/feasibility study satisfactory to the state. BUT 404 PERMIT MUST STILL BE RECEIVED. EIS TO?

If an acceptable agreement could be accomplished, the advantages of this option are obvious. First of all, contamination at the 40 acre site and the wetlands as well as the Berrys Creek ecosystem could be addressed. Secondly, with the defendant companies cooperating with the state rather than litigating, a more expeditious implementation of the most cost effective and environmentally sound remedial action(s) to be taken at the site could occur. Even if the companies were to balk at the design and implementation stages, a comprehensive RI/FS complying with the Superfund National Contingency Plan developed under this option would provide the state with a powerful tool to go back into court with.

On September 19, 1983, a meeting was held between NJDEP, HMDC, and Fred Zeigler - President, Environmental Resources Management Southeast to discuss the company's preliminary proposal and the requirements and conditions the Department would place upon any cooperative study effort at the site.

The outcome of this meeting was an agreement that NJDEP would objectively review a proposal to be developed by ERM - Southeast for generating the 17 task baseline data requirement of the Corps to do the E.I.S. and concurrently address the requirements of a Remedial Investigation/ Feasibility Study as required under Federal Superfund regulations (much of the 17 task effort overlaps with the activities conducted for a Remedial Investigation).

On October 18, 1983, the ERM prepared Scope of Work was received by NJDEP and distributed for comment to all appropriate Department technical staff, HMDC, and the Corps of Engineers Waterways Experiment Station. On November 3, 1983, an internal meeting to discuss the proposal was held with all technical NJDEP and HMDC staff that had reviewed it. It was generally agreed that the proposal represented a good faith effort on the part of the companies and would serve as a good foundation to build upon.

Accordingly, the state decided to carry out Option 2 as long as substantive progress was made at the negotiation table. In the event that negotiations deteriorated, the state could proceed with Option 1 or opt for a third option which would be to pursue Superfund monies for this project.

Negotiation meeting #1 with the two (2) chemical companies was held on January 12, 1984. The non-negotiable items of any negotiated Consent Agreement were presented by the Department. These items were not well received by the companies and very little progress was made at this first meeting.

Prior to the second negotiation meeting, it was decided that two (2) separate teams of NJDEP personnel would be established to proceed with the negotiations. A "Technical/Scientific Team" would essentially concentrate on developing the scope-of-work for the RI/FS with ERM-Southeast while a "Management Team" would negotiate all the other elements of a Consent Agreement.

Negotiation meeting #2 between the chemical companies and the "Management Team" was held on February 7, 1984. Substantive progress appeared to be made towards the development of the elements of a mutually acceptable Consent Agreement. Negotiation meeting #3 is scheduled for March 7, 1984.

The "Technical Team" met with ERM-Southeast on February 15, 1984 to begin negotiation of the scope-of-work. This meeting included the initial development of a Technical Advisory Committee to be utilized as a support group during the RI/FS. The initial members designated to serve on this committee included representatives from HMDC, C.O.E. Waterways Experiment Station, NJDEP, and Velsicol. The committee will be expanded in the future to include representatives of academic institutions and the EPA. The first meeting of the Technical Advisory Committee is scheduled for March 21, 1984.

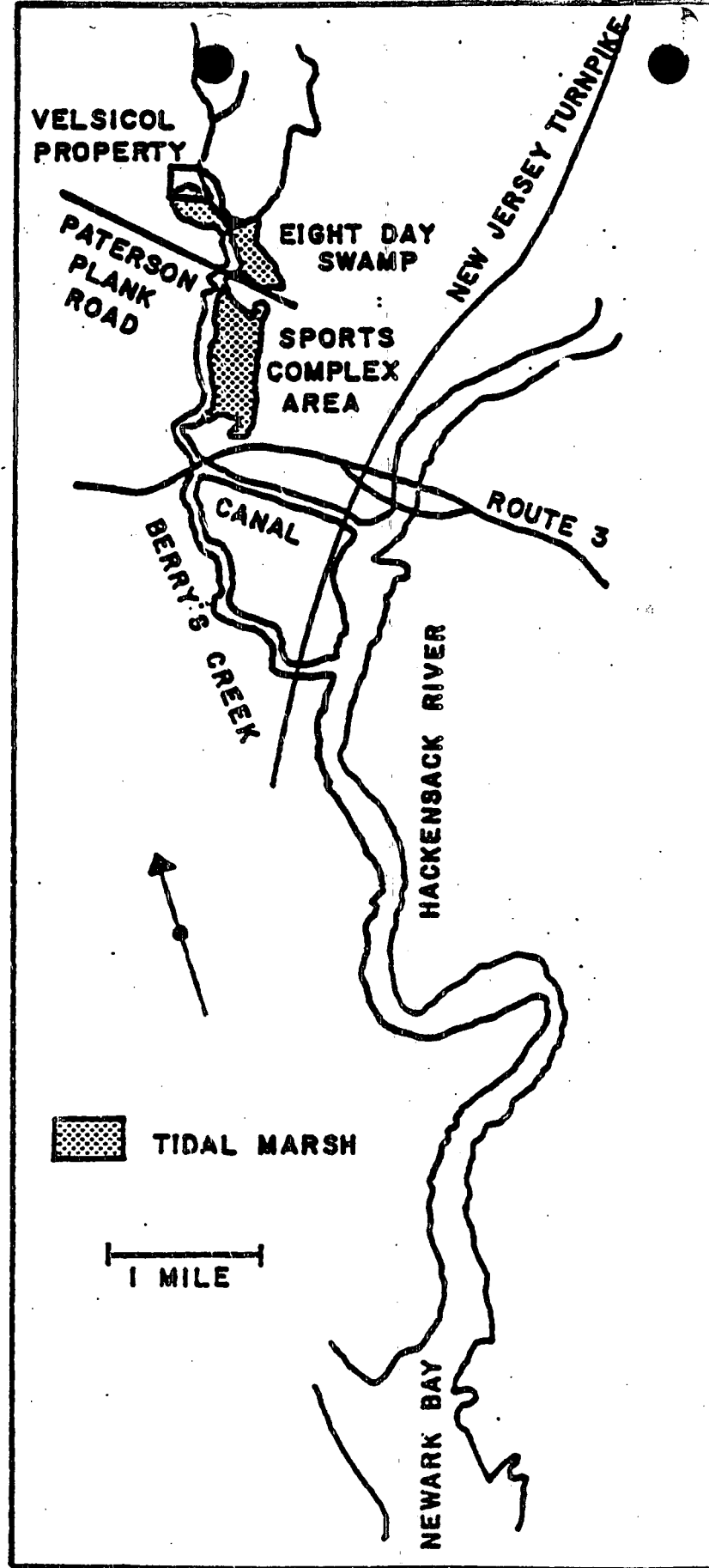


Figure 2. Berry's Creek - Hackensack River waterways.

ETHEL BLVD

RAILROAD

DRAIN
DISCHARGE

TIDEGATE

SITE OF CHEMICAL
PLANT

VELSICOL
PROPERTY

BERRY'S
CREEK

N

0

300 FT.

SWAMP

Figure 1. Site of mercury production and discharge.

